KILOVIEW® 千视

The most versatile IP-Based Video Solution Provider in the world

Quick Start Guide

P1 Video Encoder

4G Video Encoder

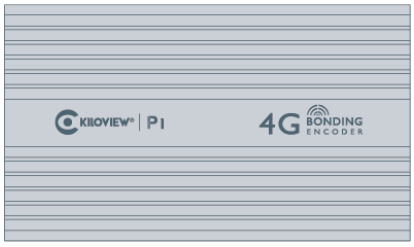
(2021-11 version)

Contents

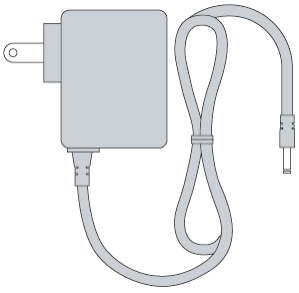
- Packing list
- Device interface and function
- Device connection, login and application
- Using guide for the bonding service
- Device upgrade and restore the factory setting

Before using this product, it is recommended that you read the guide carefully. To ensure your personal safety and avoid physical or electrical damage to the device, please strictly follow the instructions of this guide to install and use it under the guidance of professionals. Incorrect electrical connections or physical installation may cause permanent damage to the device and even threaten personal safety.

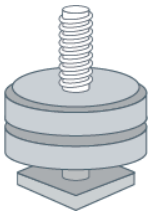
1 Packing List



(1) Device×1



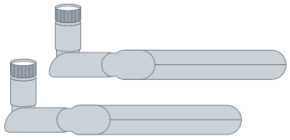
(2) Power Supply×1



(3) Cole Shoe

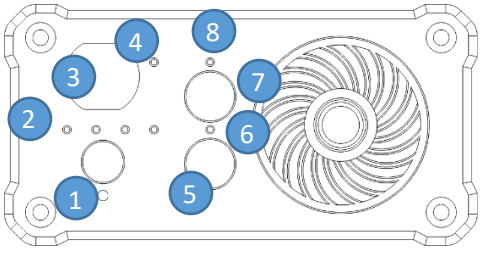
(4) Warranty Card×1

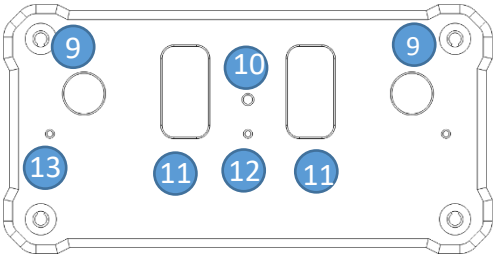
(5) Quick Start Guide×1

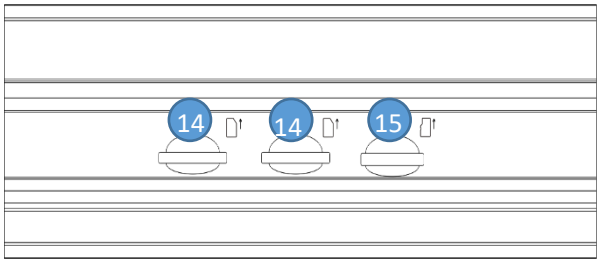


(6) 4G Antennas

2 Device Interfaces







(1) Power port
(2) Battery level/charging indicator
(3) SDI input
(4) SDI signal indicator
(5) Power button
(6) Power indicators
(7) Streaming button
(8) Streaming indicator
(9) 4G antenna port
(10) Reset
(11) USB expansion port
(12) WiFi indicator
(13) 4G indicator
(14) SIM slot
(15) Micro SD/TF slot

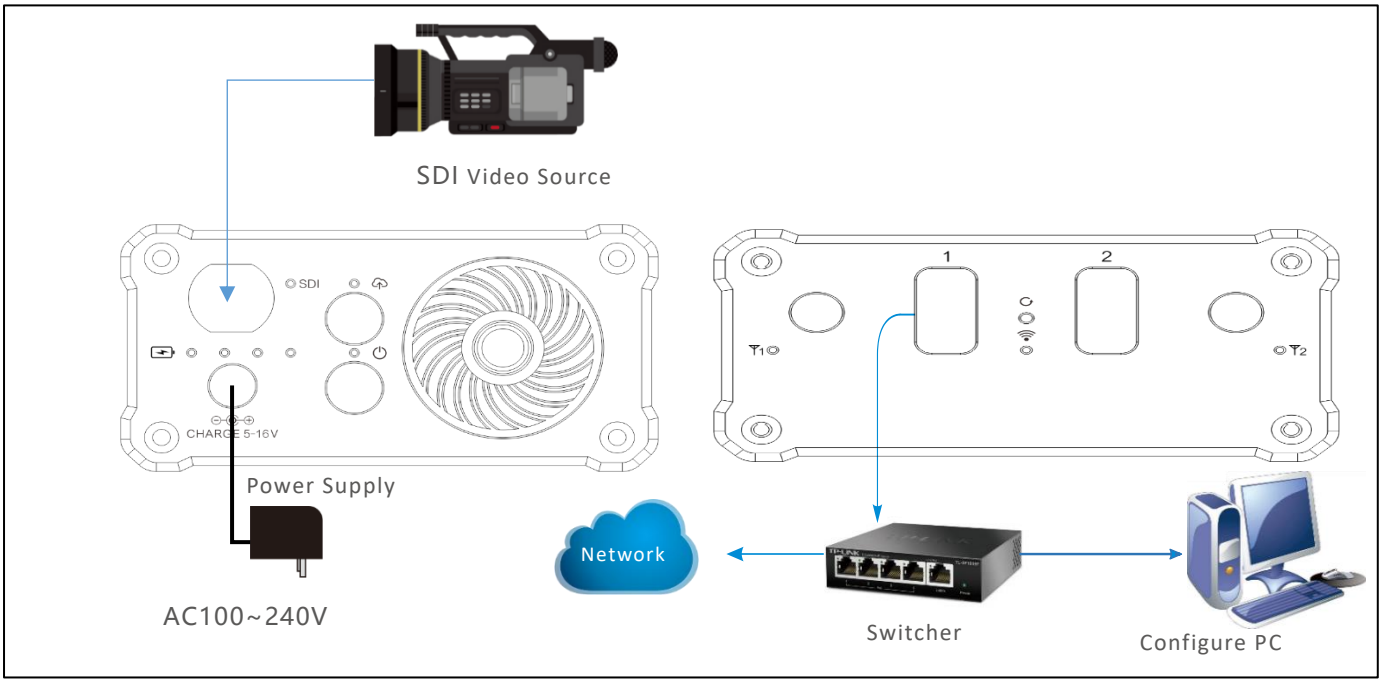
3 Device Indicator

Name	Color	Status	Description
Power Indicator	White	ON	Working
		Flashing	Starting
		OFF	Power off or failure
SDI signal indicator	White	ON	SDI signal locked
		OFF	SDI signal unconnected
Battery indicator	White	ON	Working
		Flashing	Charging
		OFF	The device is abnormal or not started
Streaming Indicator	White	ON	Start streaming
		OFF	Stop streaming
WiFi Indicator	Red	ON	Working
		OFF	WiFi disconnected
4G Indicator	Red	Slow flashing	Finding network（200ms high/1800ms low）
		Slow flashing	Standby（1800ms high/200ms low）
		Fast flashing	Data transmission（125ms high /125ms low）

4 Device Connection

Introduction

- For the first usage, please use the USB to RJ45 connector to connect the device to the wired network.
- After logging into the device web page, you can configure the wired network, 4G and WIFI.
- If multiple network links are connected, while aggregate links are not used, the network priority is the wired network, followed by the WIFI and the 4G.



Note

- Please use the standard power adapter to power the device. Other unqualified power supplies may damage the device.
- The device is powered by a built-in battery, it can be used for 3-5 hours without connecting the power adapter.
- Press the power button for more than 5s until the power indicator no longer flashes, the .boot is complete.

5 Device Discovery

5.1 Use the free tool ---ONVIF Device Manager

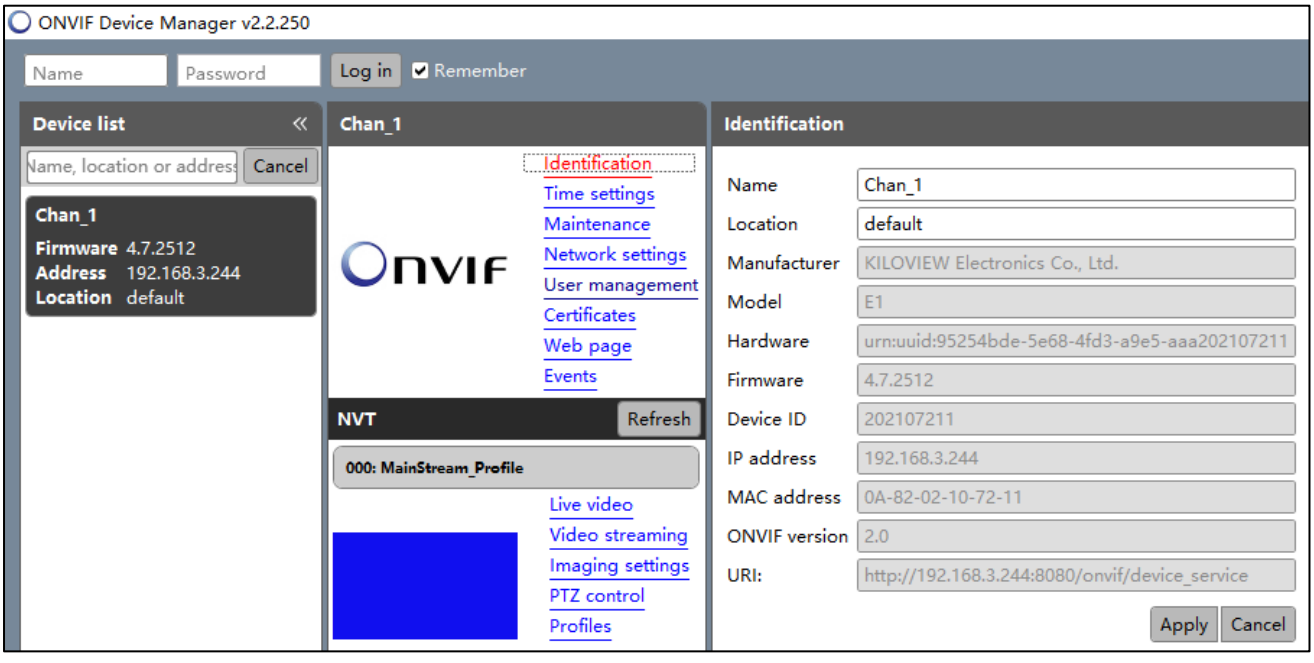
Download the ONVIF Device Manager for free

Visit the website https://sourceforge.net/projects/onvifdm/ to download and install ONVIF Device Manager. Please follow the software operation guidelines for the download method/installation.

ONVIF Device Manager is a network video app for managing network video, network video storage and network video analysis. Realize services such as discovery device, media, imaging, analysis and PTZ.

Step 1: Start ONVIF Device Manager, all devices in the network can be found in the device list.

Step 2: Click the device in the device list, the device information will be displayed in the information bar.



Introduction

- Access method: Open a web browser and enter in the address bar: http://device IP address/ (the device IP address is the IP address of the P1 displayed in the device list).
- The working network that the device is connected to needs to support automatic acquisition of IP (DHCP). After the device automatically acquires the IP, it can be discovered by the software through Onvif.

5.2 Solution for the device cannot be found

If the P1 device cannot be found on the network with above method due to the network issues, please try to access the device by the default fixed IP address 192.168.1.168. That is, fill the http://192.168.1.168/ in the browser to enter the WEB page.

For more information about the login of P1 device, please visit Kiloview official website:

https://www.kiloview.com/en/support/docs/p2/user/login-and-network-configuration/ethernet/

6 Login to the device WEB page

Enter to the WEB page, the default user name and the password are both **admin**.

Note

- To ensure information security, it is recommended to change your password immediately after logging in for the first time!
- Due to the browser compatibility issues, it is recommended to use Chrome, Firefox or Edge.

7 Device Working

7.1 Video source checking

Login to the device WEB page, enter the "Devices and Media Streams"-"Encoding and Streaming Parameter Settings", and check through the Motion JPEG stream. If there is no video input, it is a blue image. If the video is connected, it will display the real-time video image, and it changes every 3 seconds.

Note

If the video source is connected, the blue screen or abnormality is still displayed, please check the video input source, video resolution format or cable, etc.

7.2 Encoding streams checking

Download the VLC

Download and install the VLC through the official address https://www.videolan.org/vlc/. Please follow the official guidelines of VLC for the download /installation.

VLC is a free, open source, cross-platform multimedia player and framework that can play most multimedia files, as well as DVD, CD, VCD and various streaming protocols.

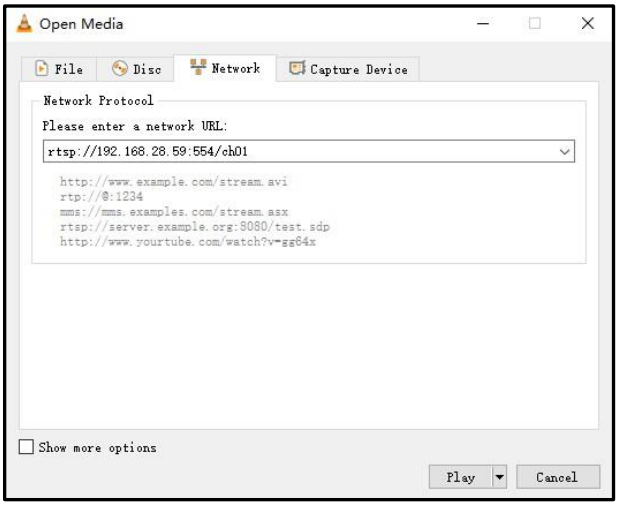
1. Click the "Encoding and Streaming"-"Encoding and Streaming Parameter Settings";

2. In the H.264 stream, copy the URL address displayed on the right side of RTSP;

3. Open "Media" ---- “Network Streaming" of VLC;

4. Enter the URL address of RTSP in the network, and click the [Play] button in the lower right corner;

5. VLC will play the input video of device.



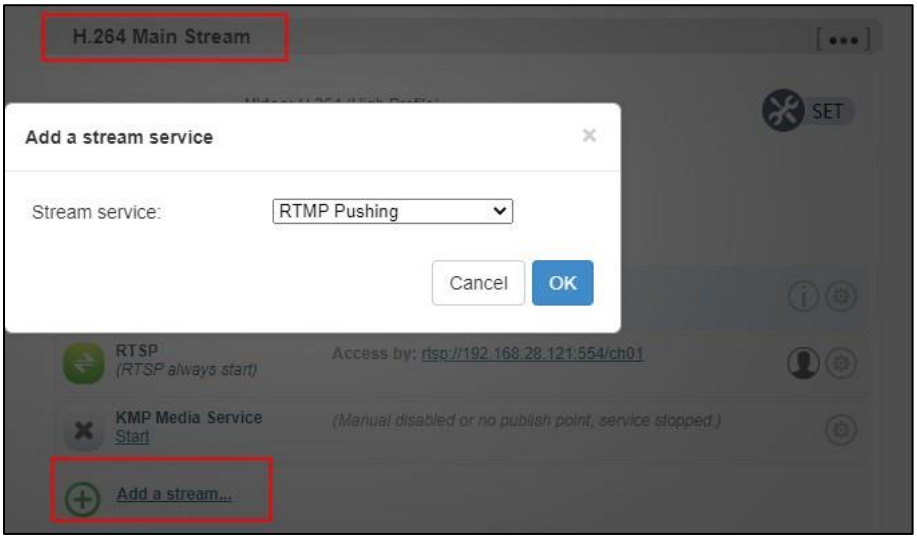
7.3 RTMP live streaming

Introduction

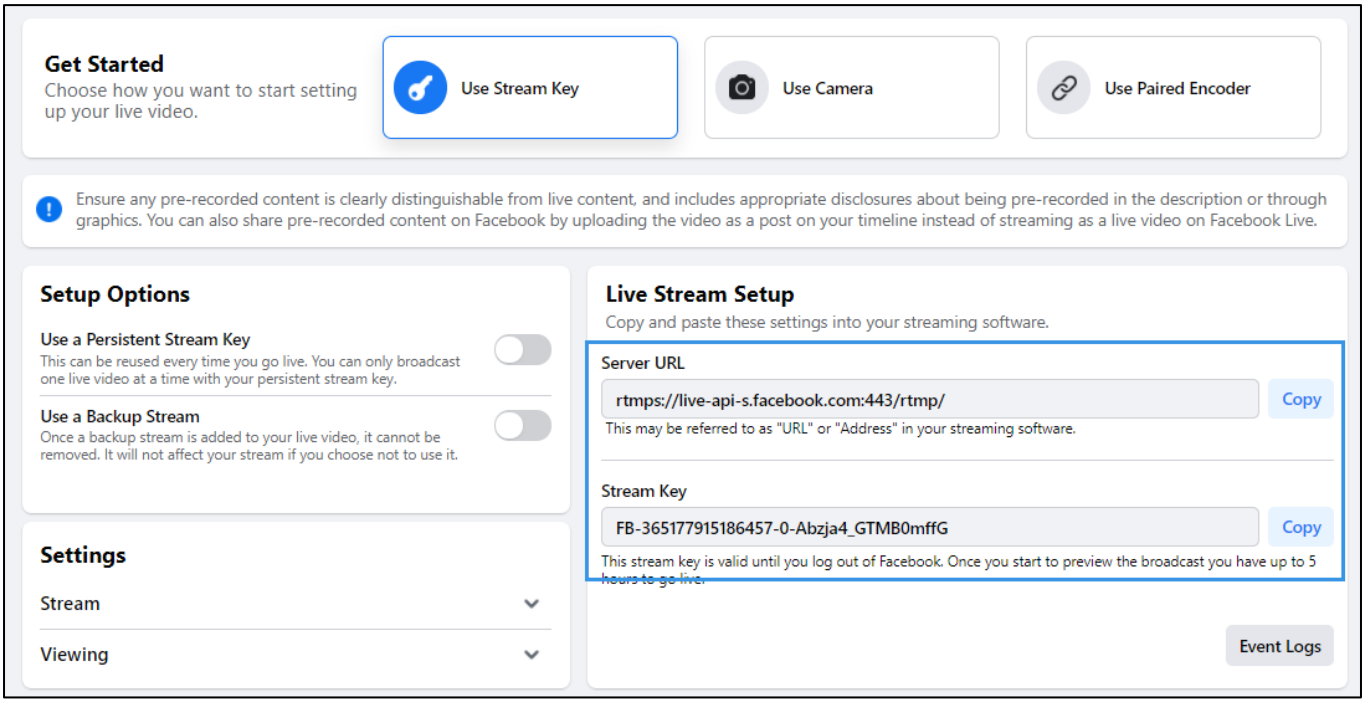
Streaming services pushed through the device's WEB page are only transmitted through a single network. If you need to transmit through an aggregated link, please refer to the section on bonding services.

- The bonding service adopts Kiloview’ s patented algorithm (KiloLink) to solve the problem of weak network transmission. According to the signal strength of each network, it is intelligently adjusted, and it maximizes the bandwidth of all network links for transmission.
- The bonding service can dynamically adjust the code rate. When the network link bandwidth is not enough, the code rate is automatically reduced to adapt to the current link bandwidth; when the link bandwidth is sufficient, it will smoothly increase to the code rate configured by the encoding.
- When network packet loss occurs, the aggregated link will retransmit through multiple network links to keep the video stable and smooth.

First, add an RTMP push point on the device side. Click "Encoding and Media Streaming" --- "Encoding and Streaming Parameter Settings", and then click "Add a Streaming Service" under the H.264 main stream, and select "RTMP Push" in the pop-up window ", after confirming, generate a push point.



Take FACEBOOK as an example, first obtain the RTMP push URL on the live platform. Login to FACEBOOK, click "Live Video" to enter the live room, and click "Use Stream Key" for live broadcast. Fill in the URL of live broadcast and Stream Key into the URL address of the RTMP push point, and start the streaming service. You can see the video in the live broadcast room.



Introduction

- If the platform RTMP streaming address and live broadcast code are separate, please use the symbol "/" to add the live broadcast code after the RTMP address. The format is: rtmp address/live code.
- Please make sure the device is connected to the network, and configure the correct IP address, DNS and other parameters.

For more information about the P1 streaming service, please visit Kiloview website:

https://www.kiloview.com/en/support/docs/p2/user/parameters-configuration/encoding-streaming-media/#Streaming_media_service

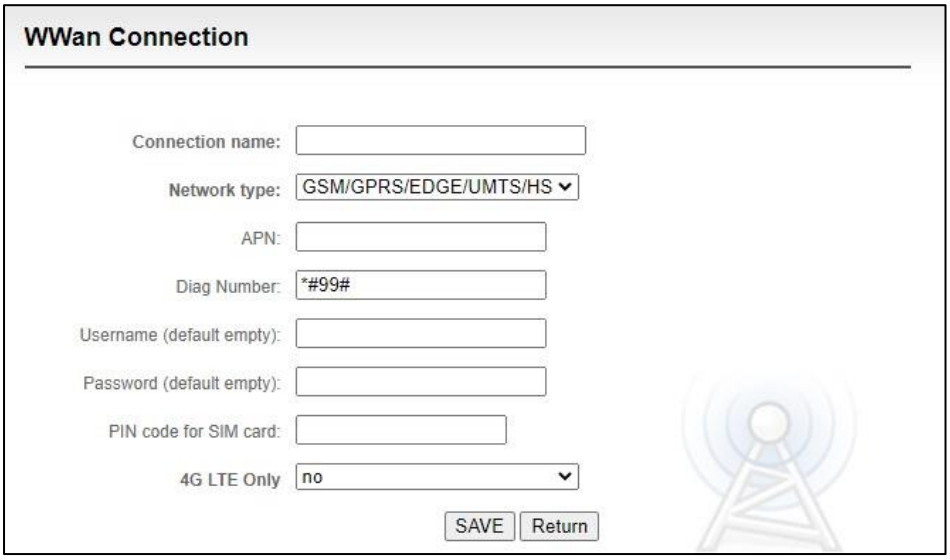
8 KiloLink Server

8.1 4G network connection

Introduction

- The device can support up to 5 networks transmission:
  1. 2 internal 4G modems + 2 USB extensions 4G modems + one WIFI
  2. 2 internal 4G modems + 1 USB extensions 4G modems + one WIFI + one Ethernet.
- When inserting 4G USB modems, there are two modes: one is "MODEM" mode, the other is "ETHERNET CARD" mode. In the MODEM mode, it will be recognized as 3G/4G Modem 3 or 3G/4G Modem 4. In the ETHERNET CARD mode, it will be recognized as USB network connection 1 or USB network connection 2.
- The device does not support hot swapping of the SIM card, please insert the 4G SIM card when the device is off, or restart the device after inserting the SIM card

Login to the device Web page, click "Network & Service Settings" – "Network interface management", and click "Settings"-"Add a new wireless WAN connection" of the 4G card.



Introduction

APN: Fill in the correct APN according to different operators. If you are not sure, please contact your local 4G card operator.

For more information about network configuration, please visit Kiloview official website:

https://www.kiloview.com/en/support/docs/p2/user/login-and-network-configuration/network-config/

8.2 KiloLink platform deployment

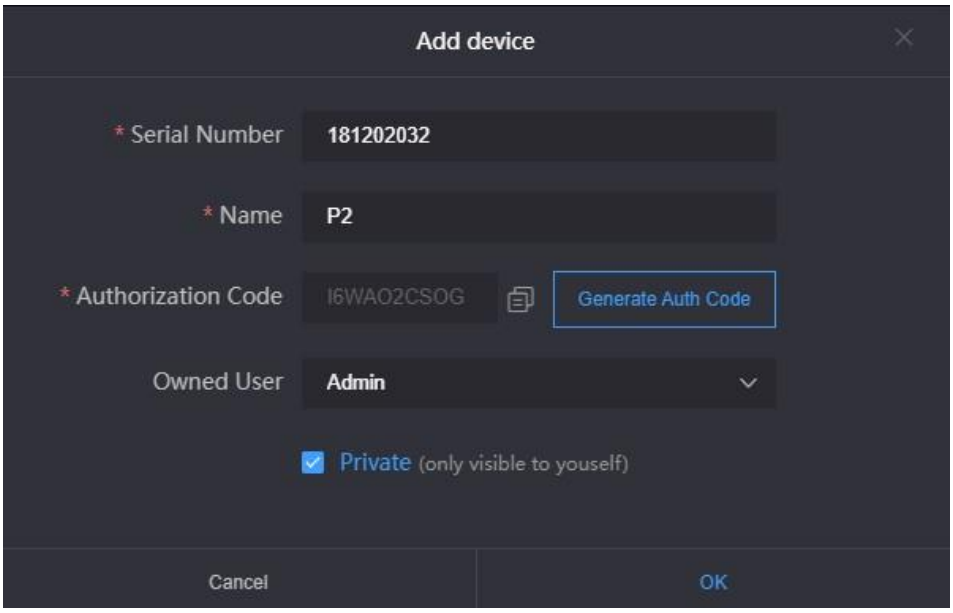
Please make sure that your KiloLink server have been updated to the latest version, please refer to:

https://www.kiloview.com/en/support/docs/kilolink-bonding-platform/kilolink-bonding-platform/

8.3 Device connection

Step 1: Add the device to the platform and generate an authorization code.

Click "Device management" - "Add device", configure the parameters and generate an authorization code.



Introductions:

- Serial Number: Login to the device Web page to get the Serial Number in the lower left corner of "System Information", which consists of 9 figures.
- Name: Any combinations of alphabets, numbers and symbols.
- Authorization Code: Click "Generate Auth Code", then an authorization code combining with letters and numbers will be generated automatically, which will be used for device registration.
- Owned User: The added devices can be visible to a certain user you assigned. All devices will be displayed under the management account.
- Private: After selected private, the added device will only be visible to yourself and the management account (admin).

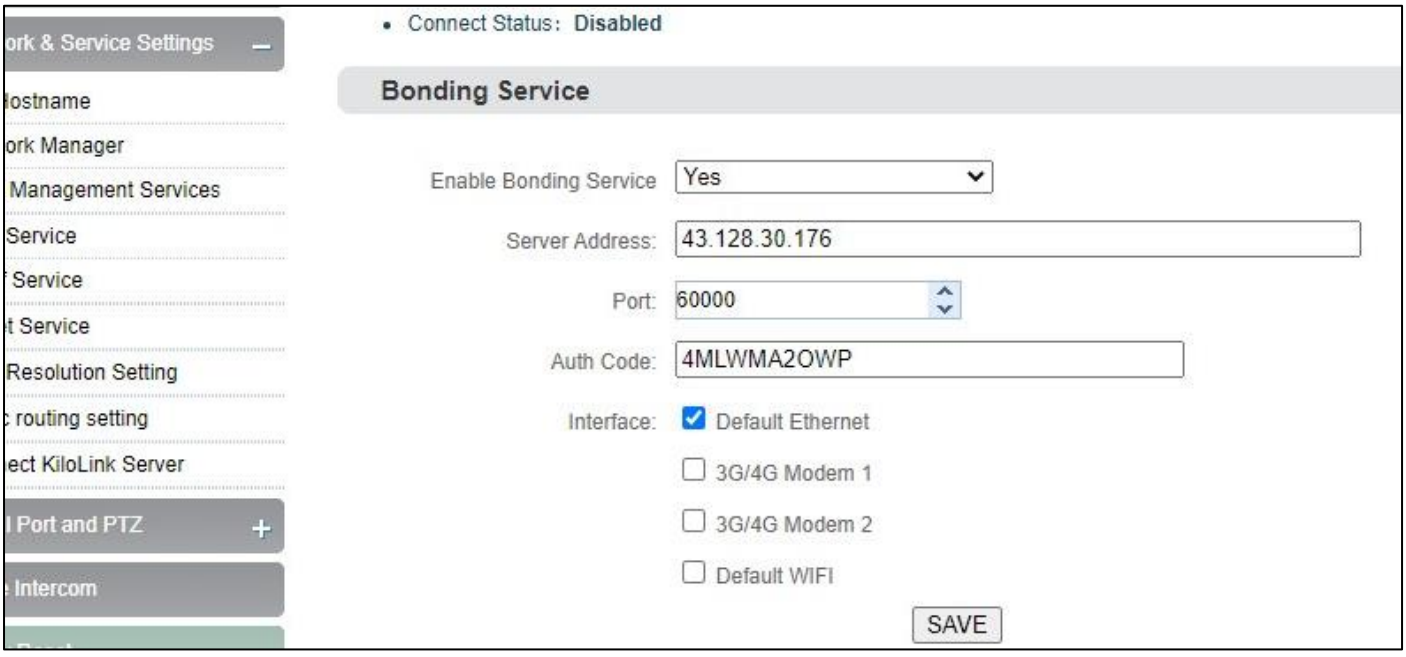
Step 2: Device registration

Login to the device Web page, click "Network & Service Settings" – "Connect Bonding Server", and configure the parameters to start the bonding service.

Introduction

Please make sure that your device firmware has been updated to the latest version, please refer to Chapter 9 "Firmware Upgrade" to download and update the device

- Server address: The IP address of the bonding server, which support domain names.
- Port: The default port is 60000.
- Auth Code: Generated when adding the device to the bonding platform.



8.4 Streaming service

Login to the KiloLink bonding platform webpage, click any area in the line of the online device under "Device Management", and the device streaming service and video preview window will pop up.

Introduction

- Streaming with the streaming service of the bonding platform, all traffic will be transmitted through the aggregation link. If the streaming service is pushed on the web page of the device, it will only be transmitted through a single network, and the network link is not selectable.
- The maximum bitrate of the streaming cannot exceed the code rate configured on the encoder. When the network link bandwidth is not enough, the streaming service will adaptively reduce the output bitrate.

For more information of the KiloLink bonding platform streaming service, please visit:

https://www.kiloview.com/en/support/docs/kilolink-bonding-platform/kilolink-bonding-platform/

9 Firmware upgrading

9.1 Download upgrade firmware

Kiloview will continue to provide the firmware of updating functions and fixing bug for P1, please visit:

https://www.kiloview.com/en/support/download/

Select “video encoders” > “P1”, find and download the latest firmware.

9.2 Upgrade device firmware

Login the management web page of P1, click "Settings"-- "Firmware Upgrade" to check whether the latest firmware version downloaded is higher than your current version. If yes, select the downloaded firmware and click "Firmware Upgrade".

After uploaded the firmware successfully, it need reboot the device. After clicking “ok”, the device will restart, please be patient.

Note

- Please not power off during the upgrade process, otherwise the device couldn’ t work.
- Due to the configuration differences between different versions, it is recommended to restore the factory settings of the device after the upgrade to ensure a better user experience.
- Generally, it will take 3-5 minutes to upgrade the device. If it’ s still not completed after 5 minutes, please try refreshing webpage, if you still can’ t access it, please try to contact technical support.

10 Restore factory settings

If the device cannot work normally after modifies the parameters or forgot internet IP configuration and couldn’ t search and find the device, please restore factory settings.

Two methods for restoring factory settings:

1) If you can login to web page, then via the WEB page, click "Settings—System settings--Restore factory settings".

2) If you can’ t login to web page, press the RESET button for 5 seconds in the bottom of device.

Note: After restoring factory setting, below parameters will be turned to default value:

- Login username and password will be “admin”;
- IP address will be restored as 192.168.1.168, subnet mask will be 255.255.255.0;
- All encoding parameters of video and audio will be restored to default value.

11 Others

P series encoders support multi-party voice intercom. For more details and to obtain KIS intercom server, please visit:

https://www.kiloview.com/en/kiloview-intercom-server

For more product information and guidelines of the P series, please visit:

https://www.kiloview.com/en/support/docs/p2/user/

To prolong the device life，please unplug the power and keep it properly if you do not use it for a long time.

Website for Kiloview official technical support

https://www.kiloview.com/cn/support/

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